



# Adolescent Physical Activity: Role of School Support, Role Models and Social Participation in Racial and Income Disparities

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# Benefits of Physical Activity

- Regular physical activity among youth has positive benefits for physical and mental health
- Lack of physical activity is associated with weight gain and obesity in youth
- At least 60 minutes of daily PA recommended for youth

# Youth Physical Activity

- Having a role model associated with greater levels of PA among youth
- Greater social participation has also been associated with physical activity
- Social support in community settings can promote physical activity, but few studies have focused on social support in the school setting.

# Research Objectives

- Examine the association of role models, social participation and support at school with adolescent physical activity
- Determine whether these associations vary by race and income

# 2011-12 California Health Interview Survey

- Interviews with over 47,000 households
- About 3,000 adolescents
- Interviews performed in five languages: English, Spanish, Korean, Chinese, Vietnamese
- Representative of California population
- Information on health status, health behaviors, and demographic and social characteristics

# Outcome: Physical Activity

- In the past 7 days, on how many days were you physically active for at least 60 minutes total per day?

# Role Model

- Type of role model – based on two questions
  - Is there a person you know or have read about that you admire and would want to be like?
  - Is this person a family member, an athlete, an entertainer, a teacher, a friend your own age, or someone else?



# Social Participation

- Social participation
  - In the past 12 months, have you done any volunteer work or community service that you have not been paid for?
  - In the past 12 months, did you participate in any clubs or organizations outside of school, other than sports, like the YMCA or Boys or Girls Club?

# Support at School

- Adolescents rated how true it was that there is a teacher or other adult at school who:
  - Really cares about me
  - Notices when I'm not there
  - Listens to me when I have something to say
  - Tells me when I do a good job
  - Always wants me to do my best
  - Notices when I'm in a bad mood

# Support at School

- Responses range from 1 (Not at all true) to 4 (Very much true)
- Responses were summed to create a variable with values ranging from 6 to 24
- Higher values indicate higher levels of support at school

# Covariates

- Age
- Gender
- Race/Ethnicity
  - Latino, Asian, African American, American Indian, white, multi-racial
- Household Income (percent of Federal Poverty Level)
  - Below 100% FPL, 100-299% FPL, 300% FPL and above

# Analyses

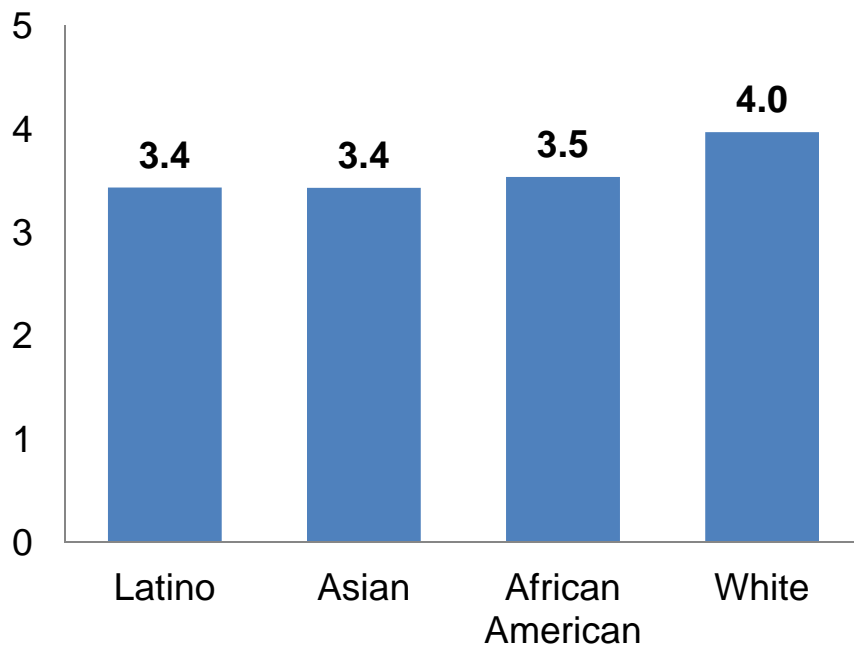
- Sample included 2,799 adolescents
- Linear Regression Analyses examining relationship between physical activity and key predictors (role model, social participation, support at school)
- Regression analyses stratified by income and race/ethnicity

# Adolescent Population

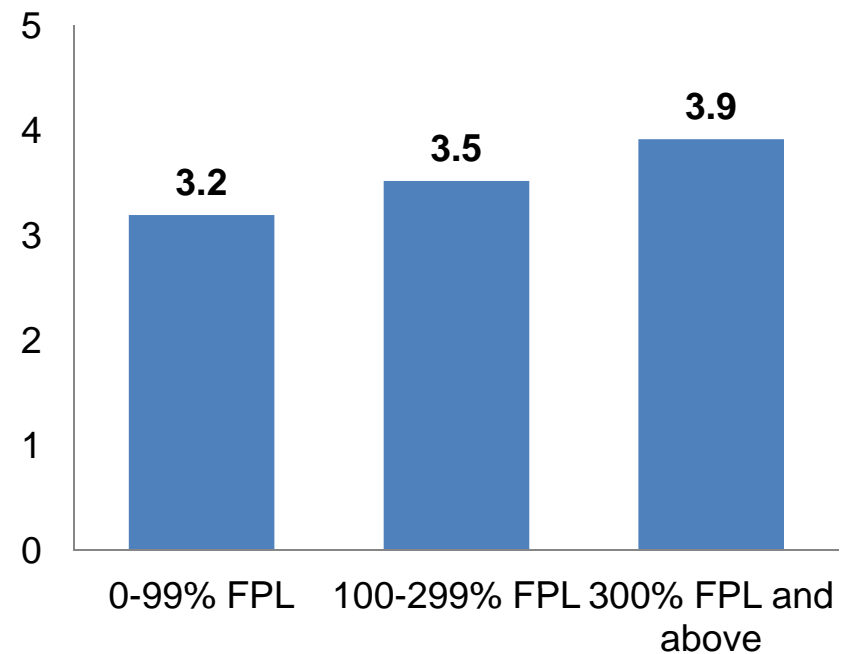
- 14.6 years old
- 49% female
- 32% Latino, 13% Asian, 5% African American, 34% white
- 22% below the poverty line
- 3.6 days with at least 60 min of PA
- 63% have a role model
- School support average score – 19.8

# Physical Activity Varied by Race & Income

Days with 60+ min PA by race/ethnicity



Days with 60+ min PA by income



# Multivariate Regression – Days of PA

- Adolescents with more days of PA
  - Volunteered in past year
  - Participated in organizations outside school
  - More support at school
  - Reported having an athlete as a role model



# Days of PA – Stratified by Race

Variable	Latino	African American	Asian	White
Volunteer Work in Past Year	0.26	0.86	0.31	<b>0.34*</b>
Organizations Outside School	0.41	0.28	0.42	0.08
School Support	<b>0.08*</b>	<b>0.18*</b>	0.02	0.005
Type of Role Model (none is ref)				
Family member	-0.43	-0.09	<b>1.09*</b>	-0.04
Athlete	<b>1.00*</b>	0.36	0.61	<b>0.78*</b>
Entertainer	-0.21	-0.50	-0.82	-0.12
Teacher	<b>0.97*</b>	0.01	0.70	-0.01
Friend	0.69	<b>-3.31*</b>	1.57	-0.18

Models also adjusted for age, gender, income

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# Days of PA – Stratified by Income

Variable	Below 100% FPL	100-299%	300% and above
Volunteer Work in Past Year	<b>0.58*</b>	0.19	0.14
Organizations Outside School	0.70	0.41	0.29
School Support	<b>0.07*</b>	0.06	<b>0.07*</b>
Type of Role Model (none is ref)			
Family member	-0.06	0.14	0.14
Athlete	0.85	<b>0.74*</b>	<b>0.81*</b>
Entertainer	-0.43	<b>-0.99*</b>	0.25
Teacher	0.17	0.21	-0.07
Friend	0.17	0.69	0.07

Models also adjusted for age, gender, race

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# Summary

- Social participation, feeling supported at school and having a role model are positively associated with adolescent PA
- These relationships varied by race and income

# Study Limitations

- Self-report measure of physical activity
- Cross-sectional research
  - Causality and direction of relationship

# Conclusions & Implications

- Different strategies promoting physical activity may be needed to impact all groups and help reduce disparities
- Strengthening social support at school among Latino, African-American, and low-income youth may help promote physical activity for these groups



Thank you!

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